

Work Order ID 69877

Page 1

Tuesday, May 24, 2011 8:26:47 AM

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 5/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/30/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 11-05-24

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2750

F

D3492

C

100

0.00



DC

DOCUMENT CONTROL

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 006

for BG 11-6-16

69877

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1- Pick D2600-3 Bent								
	2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750								
	3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.								
	4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting								
	5- Drill only two fwd step holes using DT9616. Ensure proper positioning.								
	6- Drill pilot holes as per <u>Dwg D2750 sheet 4</u> (D2750-2 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail K)								
	7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE***								
	8-Open up holes for <u>Detail B to 0.375"</u> (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail L to 0.500" (8 holes per side)								
	9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".								
	10-Open up holes of Detail A to 0.297" (total of 2 holes per side)								

11/05/30

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left
from bending as per QSI 004
A/R Aluminum Rod batch: 17116577

BE 11/05/30

12-Grind welds flush as per Dwg D2750

BB 11/05/30

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

0.00

Memo

8 u/05/31

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

Memo

8 u/05/31

(4)

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Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

OL

11/05/11

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

11-5-31

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Skidtubes	0.00							
	Skidtubes								
Skidtubes	Memo	0.00							
	1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.								
	2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750.								
	3-Open float holes to .500" (4 per Side)								
	4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9)								
	5-Deburr and blow out all chips from inside of tube								
	6-Prepare tube for welding, remove alodine as required.								
	7-Bond web D2739 in place as per QSI 015 A/R <input checked="" type="checkbox"/> Sikaflex-291 batch: 116845 <input type="checkbox"/> <input type="checkbox"/> exp. date: 12/21/15								
	8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9) A/R <input type="checkbox"/> Aluminum Rod batch: M117456								
	9- At section AP-AP drill out x-bolt spacer to 0.404"								
	10-Grind welds flush as per Dwg D2750								
	11-Spot face ground handling holes section (total of 4 places per side) as per								

OK 11/05/31

BB

11/05/31

BB 11/06/06
BB 11/06/06

BB 11/06/06

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

dwg D2750

12-Deburr holes

B 11/06/06

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

S u l o c l o z

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

S u l o c l o z

G u

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

190

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

1X ~~Ø~~ M-L 11/06/14

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME: 1:10

OVEN TEMPERATURE: 320

FINISH TIME: 1:40

1X ~~Ø~~ M-L 11/06/14

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

1 BL 11-6-15

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

Install inserts as per dwg D2750

1 BL 10-6-15

230

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

1-Inspect for Foreign Objects

2-Spray inside of tube with "LPS-3"
batch: _____

3-Install blade fitting D3488-042, wearshoes and ground handling hardware as
per dwg D2750

SIKA FLEX 241

BATCH: 117516

EXP DATE: 01-15

4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube
A/R 55-o-ring lube batch: 114189

5-Coat all exposed fasteners with "LPS Procyon"
batch: 114596

1 BL 11-6-15

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

Subtotal

Memo

250



Packaging

Packaging

Pick Kit

0.00

0.00

Memo

116/1089

260



QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

0.00

Subtotal

Memo

10

W/O:		WORK ORDER CHANGES					
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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

270

0.00



Packaging

0.00 *Revi*

Packaging

Memo

Packaging

Package as per PPP D350-636-012

Rec'd 5/24/11 @

280

0.00



QC21- Final Inspection - Work Order Release

0.00

QC

Memo

Quality Control

*11/6/2011**MF 11-06-17*

W/O:		WORK ORDER CHANGES					
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Picklist Print

Tuesday, May 24, 2011 8:26:56 AM

Page 1

Work Order ID: 69877

Parent Item: D350-636-012

Parent Item Name: Skidtube RH



Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:I 02.09.25 Rearranged procedure steps KJ
 IPP Rev:J 06-03-29 As per Rev D EC
 IPP Rev:K 06-07.13 As per dsi9343 EC
 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC
 IPP Rev:M 08-04-22 update steps 4,13 DD verified by:EC
 IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec IPP Rev:O
 10.06.22 revise seq110 DD verf:EC IPP Rev:P 10.10.01 as per
 IIN revH DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS4-1032-225		Purchased	No			220	Each	1,617.000	38	38			



Insert

Location	Loc Qty	Loc Code
ST282	1617	
110768	817	
117717	800	

AN3C5A

Purchased

No

230

Each

1,586.000

34

34



Bolt

Location	Loc Qty	Loc Code
FP-A	7	
115835	7	
ST350	1579	
115422	49	
116419	334	
116549	96	
117343	500	
117508	300	
117764	300	

38. BL 11-6-15.

34. BL 11-6-15.

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

Purchased

No

230

Each

410.0000

4

4



BOLT

Location

Loc Qty

Loc Code

FP-A

1

111982

1

ST351

409

111982

2

116419

23

116549

50

116704

84

117514

100

117619

50

117688

100

4. BR 11-6-15.

AN6C44A

Purchased

No

230

Each

113.0000

4

4



BOLT

Location

Loc Qty

Loc Code

FG

2

103964

2

ST344

111

117407

80

117763

31

4. BR 11-6-15

AN8C35A

Purchased

No

230

Each

69.0000

1

1



BOLT

Location

Loc Qty

Loc Code

FP

40

117511

40

FP-A

29

115960

6

116874

23

1 BR 11-6-15

Tuesday, May 24, 2011 8:26:56 AM

Shop Packet Print

Page 2

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Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

AN960C10L NAS1149C0332 ☒ Purchased

No

230

Each

0.0000

38

38



washer

117291



38. BR 11-6-15

AN960C816L

Purchased

No

230

Each

0.0000

1

1



WASHER

* NAS 1149C0832 R 114915



1 BR 11-6-15

D2745

Manufactured

No

230

Each

206.0000

8

8



Bushing

Location

Loc Qty

Loc Code

FP-A

206

67764

5

68248 ☒

201

8 BR 11-6-15.

D3488-042

Manufactured

No

230

Each

24.0000

1

1



Blade Fitting Assembly, RH

Location

Loc Qty

Loc Code

FP008

24

62003

4

65099 ☒

8

68109

12

1 BR 11-6-15.

D3492-1

Manufactured

No

230

Each

0.0000

8

8



Plug

69531



8 BR 11-6-15.

D3492-3

Manufactured

No

230

Each

0.0000

8

8



Plug

69822



8 BR 11-6-15.

W/O:		WORK ORDER CHANGES					
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Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

D3535-25

Manufactured No

230 Each

30.0000 1 1



Wearshoe

Location

Loc Qty

Loc Code

FP018

30

62233

1

65167

3

68353 ✓

11

69284

15

1 BL 11-6-15

D3536-25

Manufactured No

230 Each

34.0000 1 1



Gasket

Location

Loc Qty

Loc Code

FP012

34

65903

8

68351 ✓

26

1 BL 11-6-15

D3537-1

Manufactured No

230 Each

34.0000 3 3



Wearpad

Location

Loc Qty

Loc Code

FP017

34

63313

2

66804

28

66935

4

3 BL 11-6-15

D3631-1

Manufactured No

230 Each

500.0000 8 8



Washer

Location

Loc Qty

Loc Code

ST072

500

68062 ✓

500

8 BL 11-6-15

Tuesday, May 24, 2011 8:26:57 AM

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 5

Work Order ID: 69877

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00



D3672-1



Phenolic Washer

Manufactured No

230 Each

1,350.000

8 8



Location

Loc Qty

Loc Code

ST074

1350

64177 ✓

850

66821

500

4 BR 11-6-15

D3791-1



Wearplate

Manufactured No

230 Each

19.0000

1 1



Location

Loc Qty

Loc Code

FP017

19

62239

7

68352 ✓

12

1 BR 11-6-15

D3793-1



Wearshoe

Manufactured No

230 Each

31.0000

1 1



Location

Loc Qty

Loc Code

FP018

31

64445 ✓

14

69285

17

1 BR 11-6-15

D3793-3



Wearshoe

Manufactured No

230 Each

30.0000

1 1



Location

Loc Qty

Loc Code

FP018

21

68356 ✓

13

69283

8

FP019

9

64447

9

1 BR 11-6-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, May 24, 2011 8:26:57 AM

Page 6

Work Order ID: 69877

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

D3794-1 Manufactured No 230 Each 32.0000 1 1



Gasket



Location Loc Qty Loc Code

FP010 32

39421 1

61704 5

68355 ✓ 26

D3794-3 Manufactured No 230 Each 34.0000 1 1



Gasket



Location Loc Qty Loc Code

FP010 26

68357 ✓ 26

FP018 8

39422 1

61712 7

MS21043-6 Purchased No 230 Each 523.0000 4 4



NUT



Location Loc Qty Loc Code

FG 20

103693 20

FP-A 40

112314 ✓ 40

ST301 463

112314 463

1 BR 11-6-15

1 BR 11-6-15

4 BR 11-6-15

Tuesday, May 24, 2011 8:26:57 AM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Tuesday, May 24, 2011 8:26:57 AM

Page 7

Work Order ID: 69877

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

230

Each

113.0000

1

1



NUT

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST303

112

115884

0

117291

37

117423

50

117677

25

1 BR 11-6-15

NAS1611-010

Purchased

No

230

Each

266.0000

8

8



O-RING

Location

Loc Qty

Loc Code

FP

80

117460

80

FP-A

186

110915

139

115589

47

8 BR 11-6-15.

NAS1611-013

Purchased

No

230

Each

168.0000

8

8



O-RING

Location

Loc Qty

Loc Code

FP

163

117291

123

117460

40

FP-A

5

116582

5

8 BR 11-6-15.

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Tuesday, May 24, 2011 8:26:58 AM

Page 8

Work Order ID: 69877

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C21A

Purchased No

250 Each

101.0000 2



BOLT

Location

Loc Qty

Loc Code

ST344

25

117764

25

ST345

76

116381

26

117562

50

Purchased No

250 Each

43.0000 2

AN960JD816



1/2" washer, Alum

Location

Loc Qty

Loc Code

FP-A

43

106043

43

Manufactured No

250 Each

44.0000 1

D2741



Blade, 350 Skidtube

Location

Loc Qty

Loc Code

ST466

44

61341

6

63589

38

Manufactured No

250 Each

72.0000 2

D3493-1



Washer

Location

Loc Qty

Loc Code

ST062

72

66975

31

68253

41

Tuesday, May 24, 2011 8:26:58 AM

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Page 8

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

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Page 9

Work Order ID: 69877

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

D3532-1

Manufactured No

250 Each

35.0000

2

2



Spacer

Location

Loc Qty

Loc Code

ST065

35

62218

13

66949

22

MS21083C8

Purchased No

250 Each

113.0000

2

2

sl 11/6/10



NUT

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST303

112

115884

0

117291

37

117423

50

117677

25

D2600-3-BENT

Manufactured No

110 Each

14.0000

1

1



Extrusion Bent

Location

Loc Qty

Loc Code

LG

14

66875

8

68137

6

1

3 11/05/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 10

Work Order ID: 69877

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

D2744

Manufactured No

110

Each

26.0000

1

1



Cap



BE 11/05/30

Location

Loc Qty

Loc Code

LG002

26

62715

2

65086

24

D2739

Manufactured No

160

Each

4.0000

1

1



350 I Beam



6986

BB

11/05/31

Location

Loc Qty

Loc Code

LG

4

67785

1

68285

3

D2743

Manufactured No

160

Each

162.0000

8

8



Crossbolt Spacer



BE 11/06/06

Location

Loc Qty

Loc Code

LG

63

68948

63

LG001

99

67766

35

68251

64

D3490-3

Manufactured No

160

Each

86.0000

4

4



Cross Bolt Spacer



BE 11/06/06

Location

Loc Qty

Loc Code

LG

86

68106

22

68952

64

4

Tuesday, May 24, 2011 8:26:58 AM

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Page 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 11

Work Order ID: 69877



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 5/24/2011

Required Date: 5/30/2011

Start Qty: 1.00

Required Qty: 1.00

D3490-1

Manufactured

No

160

Each

49.0000

4

4



BB/06/06

Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

47

67773

5

68105

42

LG001

2

62450

2

4

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Page 11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 69827

11-05-24

RELEASED

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/35 (ZN C8-1); D3794-1/3 REPLACES D3536-13/35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.16		

DART AEROSPACE USA, INC.
PORT HADLOCK, WA

DRAWING NO. REV. F
D2750 SHEET 1 OF 11
TITLE SCALE
350 SKIDTUBE ASSEMBLY NTS

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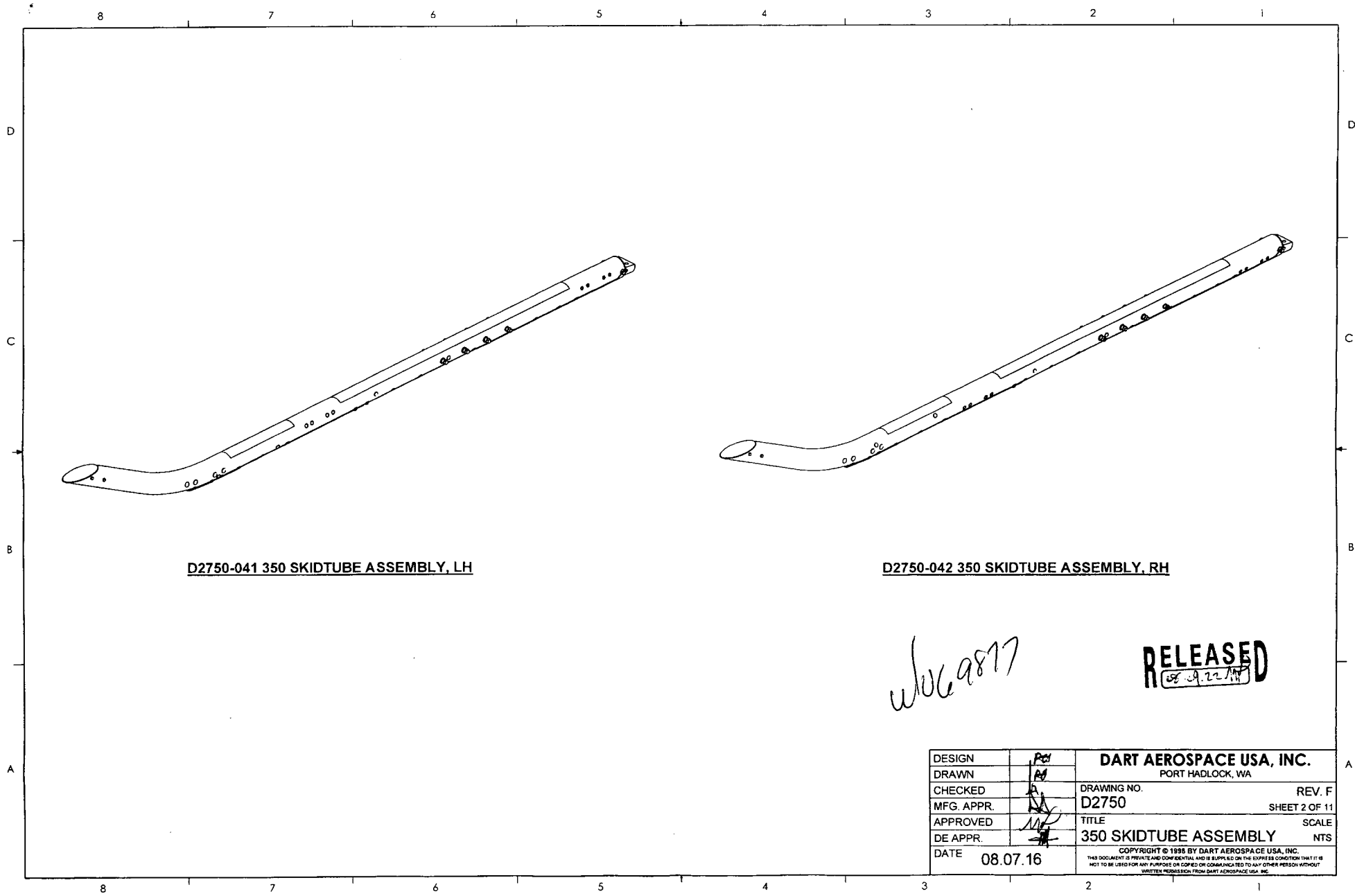
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2750-041 350 SKIDTUBE ASSEMBLY, LH

D2750-042 350 SKIDTUBE ASSEMBLY, RH

W069877

RELEASED
8-22-77

DESIGN	<i>PA</i>	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	<i>AM</i>		
CHECKED	<i>A</i>	DRAWING NO. D2750	REV. F
MFG. APPR.	<i>MA</i>	SHEET 2 OF 11	
APPROVED	<i>ME</i>	TITLE 350 SKIDTUBE ASSEMBLY	SCALE NTS
DE APPR.	<i>MA</i>	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	
DATE	08.07.16		

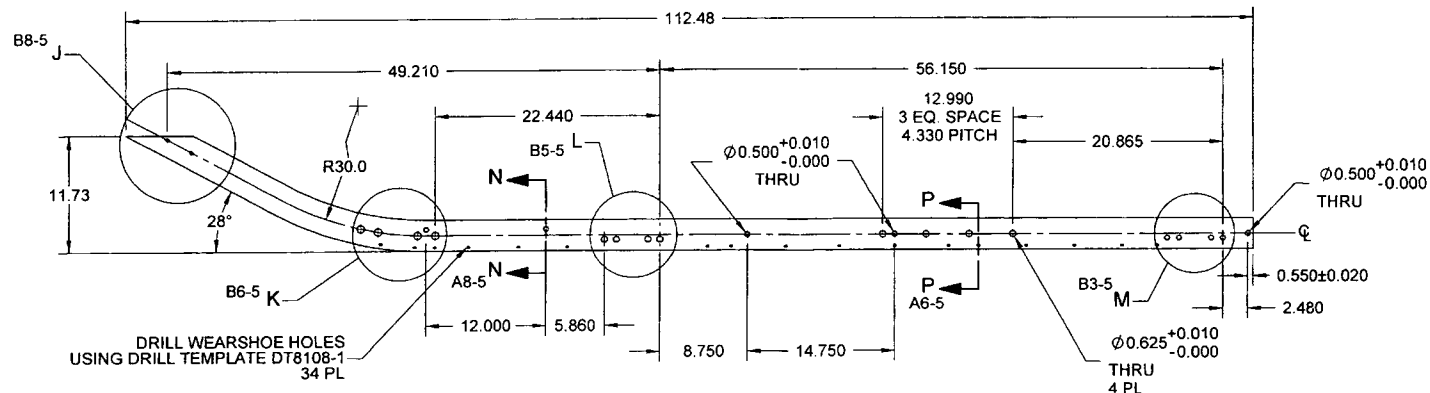
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

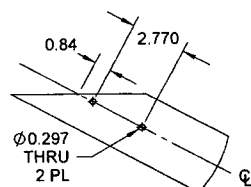
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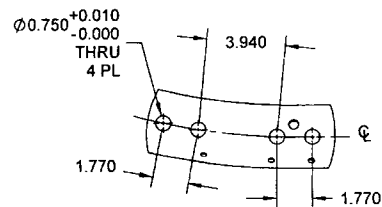
NOTE: Date & initial all entries



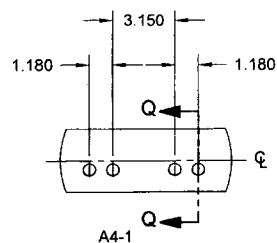
D2750-2 RH SKIDTUBE



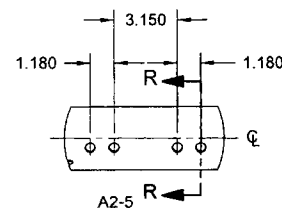
DETAIL J
SCALE 2X



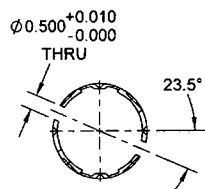
DETAIL K
SCALE 2X



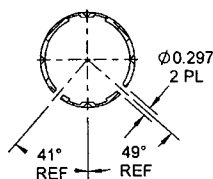
DETAIL L
SCALE 2X



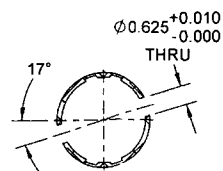
DETAIL M
SCALE 2X



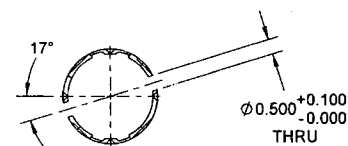
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

DESIGN	REV	DART AEROSPACE USA, INC.	
DRAWN	REV	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 5 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 253

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 6762P
Part number: D.350 636 011
Description: 350
Welding Process: Tig~~X~~ Mig[]
Base material: Aluminium
Current: AC~~X~~ DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass~~X~~ fail[]
Penetration: pass~~X~~ fail[]

UNACCEPTABLE

Cracks: pass~~X~~ fail[]
Undercut: pass~~X~~ fail[]
Pin holes: pass~~X~~ fail[]
Overlap (cold lap): pass~~X~~ fail[]
Porosity (surface): pass~~X~~ fail[]
Coloration: pass~~X~~ fail[]

Qualifier Rob Lewis Date of Test Coupon 11.05.19
Welder Barclay Elliot Date of Test Coupon 11.05.19

The above named individual is qualified in accordance with AWS D17.1.2001 to weld